THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A wedge anchor comprising:

a barrel having a wedge receiving face opposite a rod receiving face, a passage extending therethrough between said wedge receiving face and said rod receiving face, said passage narrowing toward said rod receiving face and having an axial cross-sectional profile defining a convex arc; and,

a plurality of wedges insertable into said passage, each of said wedges having a respective inner wedge face for defining a rod receiving passage for receiving a rod and an outer wedge face, opposite said inner wedge face, in axial cross-section having a profile complementary to said convex arc, said wedges not extending beyond the rod receiving face of said barrel when said wedge anchor is in its loaded configuration.

2. The wedge anchor according to claim 1, wherein said convex arc defines a radius of curvature.

3. The wedge anchor according to claims 1 and 2 further comprising a sleeve insertable into said rod receiving passage for receiving an end portion of said rod.

4. The wedge anchor according to claim 3, wherein said wedges stop short of the rod receiving face of said barrel when said wedge anchor is in its loaded configuration.

5. The wedge anchor according to claim 4, wherein the sleeve is comprised of a malleable metal.

6. The wedge anchor according to claim 5 wherein said malleable metal is selected from the group consisting of copper, aluminium and alloys thereof.

7. The wedge anchor according to claim 6, wherein said sleeve has a sleeve thickness of between 0.5 and 0.7 mm.

8. The wedge anchor according to claims 1 and 2, wherein said inner wedge face is comprised of a malleable metal.

9. The wedge anchor according to claim 8, wherein said malleable metal is selected from the group consisting of copper, aluminium, nickel and alloys thereof.

10. The wedge anchor of claim 9, wherein said inner wedge face has a face thickness of between 0.5 and 0.7 mm.

11. The wedge anchor according to claims 1, 2 or 3, wherein said rod receiving passage is comprised of four wedges.

12. The wedge anchor according to claim 11, wherein said four wedges are of equal size.

13. The wedge anchor according to claims 1 and 2, wherein said barrel is comprised of a metal.

14. The wedge anchor according to claim 13, wherein said metal is stainless steel.

15. The wedge anchor according to claims 1 and 2, wherein the arc length is less than 0.5 pi radians.

16. A wedge anchor kit comprising:

a barrel having a wedge receiving face opposite a rod receiving face, a passage extending therethrough between said wedge receiving face and said rod receiving face, said passage narrowing toward said rod receiving face and having an axial cross-sectional profile defining a convex arc; and,

a plurality of wedges for inserting into said passage, each of said wedges having a respective inner wedge face for defining a rod receiving passage for receiving a rod and an outer wedge face, opposite said inner wedge face, in axial cross-section having a profile complementary to said convex arc, said wedges not extending beyond the rod receiving face of said barrel when said wedge anchor is in its loaded configuration.

17. The wedge anchor kit of claim 16 further comprising a sleeve for inserting into said rod receiving passage for receiving an end of said rod.

18. A method of testing the tensile strength of a fibre reinforced polymer rod comprising the steps of:

securing a wedge anchor according to claim 1 to a rod end portion;

applying a tensile force to said wedge anchor sufficient to cause tensile failure of said rod at a point away from said anchor; and,

measuring the applied force.

19. A wedge anchor comprising:

a barrel having a wedge receiving face opposite a rod receiving face, a passage extending therethrough between said wedge receiving face and said rod receiving face, said passage having a convex curved axial cross-sectional profile narrowing toward said rod receiving face; and,

a plurality of wedges insertable into said passage for defining a rod receiving passage for receiving a rod, said plurality of wedges being contoured to slidingly engage with said barrel for exerting a compressive force radially inwardly along the length of the barrel on said rod, said compressive force being at a maximum toward the wedge receiving face of the barrel and at a minimum toward the rod receiving face of the barrel, said wedges not

extending beyond the rod receiving face of said barrel when said wedge anchor is in its loaded configuration.

20. The wedge anchor according to claim 19, wherein the curved axial cross-sectional profile is a convex arc.

21. The wedge anchor according to claim 20, wherein the arc has a radius of curvature.

22. The wedge anchor of claim 21, wherein the arc length is less than 0.5 pi radians.

23. A barrel for use in a wedge anchor comprising a body, said body having a wedge receiving face opposite a rod receiving face, a passage extending therethrough between said wedge receiving face and said rod receiving face, said passage narrowing toward said rod receiving face and having an axial cross-sectional profile defining a convex arc for receiving a plurality of wedges into said passage, each of said wedges having a respective inner wedge face for defining a rod receiving passage for receiving a rod and an outer wedge face, opposite said inner wedge face, in axial cross-section having a profile complementary to said convex arc, said wedges not extending beyond the rod receiving face of said barrel when said wedge anchor is in its loaded configuration.

24. A wedge for use in a wedge anchor having a barrel having a wedge receiving face opposite a rod receiving face, a passage extending therethrough between said wedge receiving face and said rod receiving face, said passage narrowing toward said rod receiving face and having an axial cross-sectional profile defining a convex arc comprising a body, insertable into said passage, said body having an inner wedge face for defining a portion of a rod receiving passage for receiving a rod and an outer wedge face, opposite said inner wedge face, in axial cross-section having a profile defining a concave arc, said wedge not extending beyond the rod receiving face of said barrel when said wedge anchor is in its loaded configuration.

25. A wedge anchor for applying and maintaining a tensile load on a fibre-reinforced polymer rod, said anchor comprising:

a steel barrel having a wedge receiving face opposite a rod receiving face, a passage extending therethrough between said wedge receiving face and said rod receiving face, said passage narrowing toward said rod receiving face and having an axial cross-sectional profile defining a convex arc having a constant arc radius;

four steel wedges of equal size insertable into said passage, each of said wedges having a respective inner wedge face for defining a rod receiving passage for receiving the rod and an outer wedge face, opposite said inner wedge face, in axial cross-section having a profile complementary to said convex arc defining a concave arc having said constant arc radius, said wedges not extending beyond the rod receiving face of said barrel when said wedge anchor is in its loaded configuration; and,

a sleeve insertable into said rod receiving passage for receiving an end portion of said rod, said sleeve being comprised of a malleable metal, wherein when said anchor is in said loaded configuration, the maximum tensile load applicable is determined by the tensile properties of said fibre-reinforced polymer rod.

26. The wedge anchor according to claim 25, wherein said wedges stop short of the rod receiving face of said barrel when said wedge anchor is in its loaded configuration.

27. A wedge anchor comprising:

a barrel having a wedge receiving face opposite a rod receiving face, a passage extending therethrough between said wedge receiving face and said rod receiving face, said passage narrowing toward said rod receiving face and having an axial cross-sectional profile defining a convex arc having a barrel centre of radius of curvature; and,

a plurality of wedges insertable into said passage, each of said wedges having a respective inner wedge face for defining a rod receiving passage for receiving a rod and an outer wedge face, opposite said inner wedge face, in axial cross section having a profile complementary to said convex arc, said outer wedge face having a wedge-face centre of radius of curvature, which is offset relative to said barrel centre of radius of curvature.